

**Amendments to the Specification:**

Please replace paragraph [0330] with the following amended paragraph:

[0330] An advancement in intracranial catheter design is taught in the present invention. As shown in FIG. 41, intracranial ~~Intracranial~~ catheter 7 includes a microelectrode channel 448. Microelectrode 449 is inserted through microelectrode channel 448, with microelectrode tip 450 protruding beyond tip of intracranial catheter 7. Microelectrode tip 450 is used to record single cell activity to identify neural structures during advancement of intracranial catheter 7 through brain 251. At the completion of the insertion of intracranial catheter 7 through brain 251, microelectrode 449 may be removed from intracranial catheter 7.